

Lightweight, Highly Flexible Ceramic Copolymer Composite Liners for Providing Multi-Threat Laceration, Abrasion and Puncture Protection to Special Ope

Award Information Agency: Department of Defense Branch **Special Operations Command** Amount: \$100.000.00 Award Year: 2010 Program: **SBIR** Phase: Phase I Contract: H92222-10-P-0067 Agency Tracking Number: S101-001-0097 Solicitation Year: 2010 Solicitation Topic Code: SOCOM10-001 Solicitation Number: 2010.1 **Small Business Information** NanoSonic. Inc. P.O. Box 618, Christiansburg, VA, 24068 **Hubzone Owned:** Ν Socially and Economically Disadvantaged: Woman Owned: Ν Duns: 008963758 Principal Investigator: Vince Baranauskas Ы (540) 953-1785 vince@nanosonic.com **Business Contact:**

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Lightweight, Highly Flexible Ceramic Copolymer Composite Liners for Pro Published on SBIR.gov (https://www.sbir.gov)

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Research Institution:

n/a

Abstract

The objective of this Phase I SBIR program is to design, construct and qualify next generation ceramic copolymer drysuit liners for providing multi-threat protection to special operations forces (SOF) divers from laceration, abrasion and puncture threats. The proposed lightweight, highly flexible liner technology will be designed for integration within currently employed drysuit ensembles and thus have immediate utility for imparting diver protection from an array of threat scenarios without compromising free-swimming maneuverability or continuous water to land operations. In addition, the proposed diver protection system will provide ballistic protection through its multiple threat defeating mechanisms. NanoSonic's drysuit liners will integrate innovative ceramic polymer armor materials within shear thickening Kevlar® and Dyneema® fibers to provide lightweight (

* information listed above is at the time of submission.